PINEDALE FIELD OFFICE

The Record of Decision and Resource Management Plan (RMP) for the Pinedale Resource Area was signed in December 1988 (BLM 1988). This plan provides the management direction for approximately 931,000 acres of public surface land and 1,185,000 acres of federal mineral estate that are administered by the BLM in the Pinedale Field Office (FO). This plan addresses BLM-administered lands in Sublette, Lincoln, and Teton Counties.

Environmental Baseline

This section presents a summary of the known wolf packs in the Pinedale FO and an analysis of the effects of past and ongoing human activities (including Federal, State, tribal, local and private) that may influence wolves and their habitats. Between 2000 and 2002, two to four wolf packs took up residence in the Pinedale FO. In 2003, five wolf packs occurred within the boundaries of the FO, including a new wolf pack that established a territory west of Daniel and is now named the Daniel Pack (**Map 9**). A sixth pack has a partial home range in the FO but resides mostly in YNP. Wolf packs cover 35,469 acres of BLM land in the FO, the most of any of the FOs. However, two of the packs are mapped as circles, indicating that telemetry data are not available to show the complete home range and are thus not realistic estimates.

Existing Conservation Measures

The following section presents measures included in the Pinedale RMP that may directly or indirectly minimize impacts to the wolf.

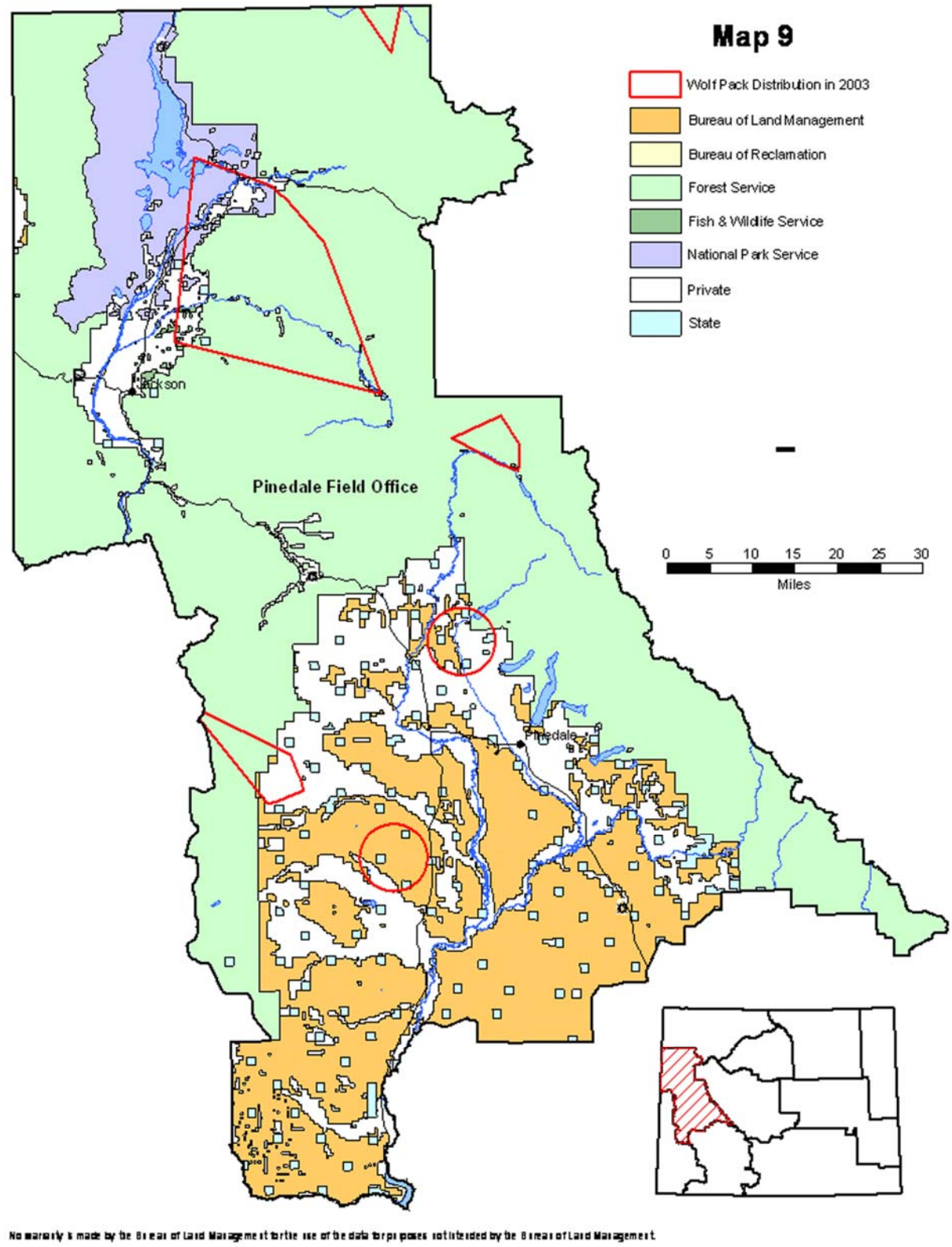
(a) "Threatened and endangered (T&E) species and their habitats will be protected. Actions which would degrade habitat to a point of jeopardizing the continued existence of a T&E species will not be allowed. The U.S. Fish and Wildlife Service (USFWS) will be consulted on any action with reasonable potential to affect endangered species or their habitats. A biological assessment will be prepared on all proposals where T&E species habitat will or may be affected and a biological opinion will be requested from the USFWS. All actions will include consideration for T&E plant and animal species. The Pinedale Resource Area will continue to be inventoried to identify potential habitat and occurrence of T&E species. Identification of habitat occupied by T&E species and habitat with potential to help support these species would be managed in accordance with the national recovery plans." (BLM 1988, p.21).

(b) "Habitat occupied by federally listed T&E plant and animal species will be monitored to ensure compliance with the Endangered Species Act)" (BLM 1988, p.21).

(c) "To protect important raptor nesting habitat, activities or surface use will not be allowed from February 1 through July 31 within certain areas encompassed by the authorization. The same criteria apply to defined raptor winter concentration areas from November 15 through April 30" (BLM 1988, Appendix A-1, p. 59).

(e) "Portions of the authorized use area legally described as (legal description), are known or suspected to be essential habitat for (name) which is a threatened or endangered species. Prior to conducting any onsite activities, the lessee/permittee will be required to conduct inventories or studies in accordance with BLM and U.S. Fish and Wildlife Service guidelines to verify the presence or absence of this species. In the event that (name) occurrence is identified, the lessee/permittee will be required to modify operational plans to include the protection requirements of this species and its habitat (e.g., seasonal use restrictions, occupancy limitations, facility design modifications)" (BLM 1988, Appendix A-1, p.59).

Map 9. Pinedale Field Office Wolf Pack Polygons in 2003 (adapted from USFWS et al. 2004, Figure 3).



Analysis of Proposed Management Actions and Effects

The Pinedale RMP (BLM 1988) includes descriptions of each management prescription applied within the FO. These activities are summarized in the Introduction, above. Refer to the Pinedale RMP for a complete explanation of each prescription.

Surface Disturbance Restriction Decisions

Management Actions

Necessary protection from surface-disturbing activities will be provided for wintering wildlife on about 461,090 acres of crucial and noncrucial winter range. Seasonal restrictions will be incorporated into all land use authorizations where appropriate. This includes approximately 13,440 acres of noncrucial elk winter range in the Bench Corral area; approximately 3,400 acres of noncrucial elk winter range in the Miller Mountain area; and approximately 12,800 acres of noncrucial deer winter range in the Mesa area.

No surface occupancy will be allowed on elk feedgrounds. Exceptions may be allowed if analysis indicates that proposed activities will either benefit or cause no adverse impacts to the elk. Further public input will be required for exceptions that are not designed to specifically benefit elk. No activity or surface disturbance will be allowed in elk calving areas during periods of use, usually between May 1 and June 30.

Sage grouse nesting areas will be protected in accordance with the Wyoming BLM mitigation guidelines. Surface occupancy or use, including but not limited to the drilling of wells, the construction of well pads, roads, pipelines, or other types of rights of way, and/or the installation of permanent or high profile structures (buildings, storage tanks, overhead powerlines, etc.) within ¼ mile of a sage grouse lek (strutting ground) will be restricted or prohibited unless the operator and Authorized Officer arrive at an acceptable plan to mitigate anticipated impacts. Activity will generally be restricted to existing roads and trails. Other activities may be allowed if environmental analysis indicates that nesting sage grouse concentrations will not be adversely affected. Activity between the hours of 12 midnight and 9:00 a.m. will not be allowed within approximately one half mile of leks (e.g., during strutting season).

Seasonal restrictions will be applied to active raptor nests. Priority for further inventory of raptor nest locations will be given to areas where activities and surface disturbance are proposed.

No surface disturbance will be allowed within 500 feet of riparian habitat, wetland, and (or) live water unless a high potential for successful rehabilitation exists and (or) impacts will be temporary in nature. No surface disturbance will be allowed on the Upper Green River special recreation management area, except as identified in a management plan for that area. No surface disturbance will be allowed within one-quarter mile or the visual horizon (whichever is closer) of contributing segments of historic trails. Waste disposal facilities (e.g., drilling fluid pits, solid waste, and sanitary facilities) will not be authorized on floodplains, wetlands, and related riparian zones. Surface disturbance will be minimized in crucial watersheds, such as Soap Holes Basin and Tip Top, with emphasis on reducing soil erosion and sediment and salinity contributions to the Green River Basin water system. Surface-disturbing activities will be appropriately restricted in accordance with the Standard Mitigation Guidelines and standard practices applied to surface-disturbing activities.

No surface occupancy will be allowed on cultural sites 48SU301, 48SU350, and 48LN300, and on developed and semi-developed recreation sites. No exceptions will be allowed without further public input. The NSO established for cultural resource site 48SU301 was established on a 160 aliquot part subdivision so that it could be readily and legally described in land description terms. The intent of the NSO is to prohibit surface occupancy on the physical cultural resource properties of the site. It is also intended to prohibit surface occupancy within the immediate viewshed of the various site properties (i.e., that portion of the viewshed that occurs within the NSO boundary). It was not intended to prohibit surface occupancy in those portions of the NSO that occur outside the viewshed and that contain no cultural properties.

No surface occupancy will be allowed in the Rock Creek drainage within the Rock Creek Area of Critical Environmental Concern (ACEC) (approximately 4,200 acres). The only exceptions are activities proposed to benefit the Colorado River cutthroat trout habitat. No exceptions will be allowed without further public input.

Effects Analysis

Implementation of surface disturbance restrictions throughout the Pinedale planning area will not detrimentally impact wolf behavior or habitats. Measures intended to restrict surface disturbances, especially at elk and other big game feed grounds and within 500 ft. or riparian areas, may result in secondary effects that are beneficial to the wolf by protecting elk and moose.

Determination

Implementation of surface disturbance restriction management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the species.

Air Quality Management

Management Action

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the Pinedale RMP.

Effects Analysis

Actions related to air quality management will not result in negative impacts to wolf behavior or habitats. Implementation of these management actions will likely result in maintaining or improving environmental conditions throughout the FO, which may have secondary benefits to wolves and their prey.

Determination

Implementation of air quality management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Minerals Management

Management Action

The 7,636-acre Scab Creek area will be closed to oil and gas leasing. The remainder of the planning area (approximately 1,185,000 acres) will be open to consideration for leasing, exploration, and development of oil and gas. Once an oil and gas lease has been issued, it constitutes a valid existing right and BLM cannot unilaterally change the terms and conditions of a lease. Therefore, in areas where oil and gas exploration and development activities are restricted or in areas closed to oil and gas leasing, an existing lease in the area would not be affected by the closure and restrictions cannot be added to the lease. Closures and additional lease restrictions could not be fully implemented until after a lease expires and new leases are issued for the same area. However, additional restrictions can be applied at the Application for Permit to Drill (APD) stage, and at subsequent development stages, that would mitigate potential impacts from oil and gas operations within existing lease areas so long as rights to develop the leases remain intact.

The BLM will evaluate industry-proposed measures to protect health and safety through the drilling permit process. Of particular concern will be the requirements of approved contingency plans for hydrogen sulfide (H_2S) release. Requirements of operators could include conducting dispersion analyses to determine ambient H_2S concentrations during well blowouts, collecting onsite meteorological data, preparing detailed evacuation plans, and placing offsite warning signs.

The Riley Ridge Project Monitoring Program will be continued. Further monitoring will include gathering of geological data in the Deadline Ridge-Graphite Hollow crucial elk winter range to aid in preparation of the proposed activity plan. Monitoring will be coordinated with other resource monitoring programs such as wildlife, surface and ground water quality, grazing, and cultural resources, as appropriate.

Geophysical notices of intent will be evaluated on a case-by-case basis. All acreage in the planning area will be subject to various appropriate limitations (e.g., vehicle use restrictions), including about 517,170 acres subject to seasonal limitations. In addition, the use of explosive charges may not be allowed in any area if analysis determines that unacceptable adverse impacts would occur. Generally, all authorizations will be issued with appropriate application of surface disturbance mitigation requirements.

Specific limitations include: Approximately 7,636 acres in the Scab Creek area will be closed to geophysical activities; areas closed to ORV use will also be closed to vehicle use for geophysical activities; in the Beaver Creek Area of Critical Environmental Concern (ACEC), geophysical vehicles will be restricted to existing roads and trails; geophysical vehicle travel through developed and semi-developed recreation sites will be restricted to established roads and trails, geophysical activities in the remaining no surface occupancy (NSO) areas (mostly cultural sites and elk feedgrounds) will be evaluated on a case-by-case basis and may be restricted if unacceptable impacts would occur to other resources (e.g., water quality, cultural, wildlife, recreation, and visual resource values).

The Rock Creek ACEC and surrounding area (about 17,000 acres) will be available for consideration for oil and gas leasing with appropriate stipulations, following the completion of an activity plan and associated environmental analysis. That portion of the Rock Creek ACEC within the Rock Creek watershed boundary will be leased with an NSO stipulation for protection of the pure strain of Colorado River cutthroat trout in Rock Creek.

Leasing guidelines and objectives in the remaining parts of the Rock Creek ACEC and portions of the adjacent Deadline Ridge-Graphite Hollow crucial elk winter range will be established in a site-specific minerals/wildlife management plan (activity plan) and environmental analysis. This plan will include an evaluation of the ongoing elk habitat use study and compilation of geologic data.

The plan will also include the following direction:

Oil and gas leasing direction, regarding related activities in the evaluation area east of the Rock Creek ACEC, will be designed to ensure continued elk winter use in the Deadline Ridge-Graphite Hollow area. Oil and gas development will be allowed if determined to be compatible with continued elk use of the crucial winter range. No substantial adverse impacts to this elk habitat will be allowed.

Oil and gas leasing direction, regarding related activities in the evaluation area west of the Rock Creek ACEC, will be guided by the RMP multiple use guidelines and objectives. Evaluation may allow for some development on this portion of the crucial elk winter range, as long as RMP planning objectives are met.

The Deadline Ridge-Graphite Hollow wildlife/leasing study and activity plan will identify any suitable areas for surface occupancy based on the previously mentioned mineral leasing guidelines and objectives. Any requests for relief from leasing restrictions that are in conflict with these guidelines and objectives will be analyzed on an individual basis. Based on the analysis, either the conflicting actions would be denied or a plan amendment would be initiated to modify the plan objectives.

Upon completion of the Deadline Ridge-Graphite Hollow activity plan, large contiguous areas may be offered for lease with the NSO stipulation. These areas may only be accessed through directional drilling. The NSO stipulation would be used, rather than a no lease provision, under the assumption that industry is the best judge of whether technology would enable access to the oil and gas resources in compliance with the terms of the lease.

Leasing with the NSO stipulation could become necessary if the area is characterized by steep, and in many cases unstable slopes, with stream/riparian zones "filling" the valley bottoms. Any disturbance on the steep slopes or in the riparian zone threatens the crucial elk and cutthroat trout habitats directly.

With the exception of withdrawn lands, the planning area will be open to mineral location. Areas identified in the future as needing total protection from locatable mineral activities will be closed to mineral location and considered for withdrawal. For example, if analysis of the Rock Creek drainage portion of the Rock Creek ACEC indicates that this level of protection is necessary, a withdrawal from mineral location will be initiated on the area (approximately 4,200 acres).

Applications for mineral sales (e.g., sand, gravel) will be analyzed and processed on a case-by-case basis and appropriate surface disturbance mitigation requirements will be included in permits. The established common use area in sections 15, 22, 27, and 34, T27N, R115W, will remain available for development. However, those portions of the common use area in sections 15 and 22 will be managed under the Interim Management Policy and Guidelines for Lands Under Wilderness Review until Congress acts upon the wilderness recommendations.

In the Pinedale FO, oil and gas drilling is occurring in high-elevation forested areas, on the east side of the Wyoming Range. The APDs are on hold, and 12 wells a waiting for APDs at present.

Effects Analysis

Construction of roads and pads, and increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wolves and increased intrusion by humans. Association with humans leads to higher wolf mortality due to easier access for illegal trapping, snaring, and shooting. Wolves avoid areas with high road densities. A road density threshold of 0.45 km/km2 best classified pack and nonpack areas in one study (Mladenoff et al. 1995, 1999).

Determination

Implementation of minerals management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Natural History and Paleontological Resources Management

Management Action

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with cultural resource management may detrimentally affect wolf behavior by causing wolves to avoid or abandon areas where management actions are implemented. These potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of wolf habitat affected. Surface disturbing activities associated with cultural resource investigations can vary in size and degree of disturbance. These projects may require the use of hand tools, power tools, or heavy machinery. Denning and rendezvous sites are the most sensitive habitat elements for wolves, as these are often used repeatedly over the years and are relatively limited across the landscape. Disturbance and destruction of denning habitats is possible, however, the likelihood is extremely low.

Determination

Implementation of cultural resource management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Soils and Watershed Management

Management Action

The Wyoming BLM Standard Mitigation Guidelines for Surface-Disturbing Activities and the standard practices applied to surface-disturbing activities are used to control nonpoint sources of water pollution. These are examples of best management practices (BMPs) relative to the Clean Water Act of 1972, as amended. As other BMPs for nonpoint sources of water pollution are developed, they will be incorporated into the guidance for this plan where they conform with the RMP objectives.

Projects proposed on BLM-administered lands will be evaluated on a case-by-case basis for affects on

soil and water resources. Soil management practices will be applied on a site-specific basis using soil survey data, and will be related to the soil characteristics such as the steepness of slopes, the length of slope, and soil chemistry and composition. Watershed management practices will follow similar guidelines.

Examples of management practices to be applied throughout the planning area include seasonal closures due to saturated soil conditions and the standard practices applied to surface-disturbing activities. At certain times of the year, use will be precluded until soil moisture is such that the use or activity will not result in degradation of the soil resource and watershed condition. These closures occur predominately in the spring and autumn.

A monitoring program for specific surface waters will be continued to identify trends on water quality. Public drinking water at recreation sites will also be protected and monitored to be in compliance with EPA safe-drinking water standards.

A Level II ground water study of the Riley Ridge/LaBarge area will be completed to define the ground water resource and to determine what additional ground water monitoring and protective measures are necessary in regard to subsurface activities conducted in the area (e.g., oil and gas drilling activities).

Ground water protection will continue to be provided by applying appropriate procedures. Special precautions will be taken to ensure protection of ground water quality when surface disturbance is to occur on ground water recharge zones.

An activity plan for reducing erosion and channel degradation will be prepared for the Tip Top watershed. Specific actions could include road maintenance, recontouring, and reseeding of disturbed sites to help achieve soil stabilization.

A watershed/recreation plan will be prepared on the Stuart Point-Mount Airy area for reducing sedimentation while still allowing off-road vehicle (ORV) use. A more detailed description of this area can be found in the ORV section.

All actions will comply with Executive Orders 11988 Floodplain Management and 11990 Protection of Wetlands, and the State of Wyoming Department of Environmental Quality water quality standards.

Effects Analysis

Actions associated with watershed management will not negatively impact wolves or their prey. The watershed improvement practices along the Shoshone and Bighorn rivers are likely to improve riparian vegetation and habitat which will benefit elk and other big game.

Determination

Implementation of watershed management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Wildlife Habitat Management

Management Actions

The U.S. Fish and Wildlife Service (USFWS) will be consulted on any action with reasonable potential to affect endangered species or their habitats. A biological assessment (BA) will be prepared on all proposals where T&E species habitat will or may be affected and a biological opinion will be requested from the USFWS.

Threatened and endangered (T&E) species and their habitats will be protected and monitored. Actions that would degrade habitat to a point of jeopardizing the continued existence of a T&E species will not be allowed. The Pinedale planning area will continue to be inventoried to identify potential habitat and occurrence of T&E species. Identification of habitat occupied by T&E species and habitat with potential to help support these species would be managed in accordance with the national recovery plans. Potential habitat includes high density prairie dog towns for black-footed ferrets, wetlands for whooping cranes, high cliffs over riparian zones for peregrine falcons, and cottonwood stands along the Green, New Fork, and East Fork rivers for bald eagles. Management prescriptions for potential habitat will include consideration for future occupancy by T&E species. Key habitat characteristics will be identified to help ensure maintenance of high quality areas for natural reoccupation.

Areas with habitat having potential to support transplanted or introduced wildlife species (other than T&E species) will be identified in the development of activity plans and managed in accordance with the RMP objectives. Proposals for introductions or species transplants to BLM-administered public lands will be evaluated and analyzed, and the impact to and of other resources will be considered. Cooperative agreements will be developed, if necessary, to facilitate species transplants and habitat management.

Some examples of wildlife that will be monitored and/or otherwise safeguarded include mule deer, elk, antelope, and sage grouse use patterns. Habitat trend for the species will be interpreted through survey data collected, in cooperation with livestock and watershed studies and monitoring activities. Interdisciplinary selection of key areas and plant species will ensure that crucial habitats are monitored. In the Deadline Ridge-Graphite area, management emphasis will be placed on maintaining crucial elk winter habitat. In elk feedgrounds, management emphasis will be on maintenance of habitat quality and continued use of the areas as elk feedgrounds. To maintain the integrity of the elk feedgrounds, certain activities would be constrained on lands near them. The NSO restriction would be imposed for all activities except those that have impacts which are temporary in nature or that are compatible with elk habitat management.

The Colorado River cutthroat trout (a BLM sensitive species) will be monitored in cooperation with the Wyoming Game and Fish Department.

Riparian area maintenance, improvement, and restoration will help promote quality fish habitat on streams and lakes. Coordination with WGFD will continue on the Comprehensive Management and Enhancement Plan, and the East Front Aquatic Habitat Management Plan (HMP) will be implemented to promote riparian habitat management and protect the Colorado River cutthroat trout in Wyoming to improve habitat and expand the range of these trout so they are no longer imperiled. Efforts to control siltation into the East Fork and New Fork rivers will be pursued to improve the water quality of these fisheries. Water Quality Standards for other fishing streams and lakes will be coordinated with WGFD and the State Department of Environmental Quality. Adherence to these standards will help maintain existing fish habitat.

High priority will be given to improvement of wildlife habitat through vegetation manipulation. Any areas identified in the future as suitable for treatment to benefit wildlife will be considered. In addition, the East Front Aquatic HMP and the Upper Green River HMP will include consideration of habitat improvement and related projects for enhancing habitat for waterfowl and aquatic species.

Vegetation treatments for livestock grazing and other resource objectives will include consideration of wildlife objectives and related restrictions. Habitat will also be enhanced by other improvements, such as development of water facilities. During development and implementation of activity plans (e.g., allotment, timber, watershed, or wildlife habitat management plans), consideration of habitat improvement needs and locations will be included. Road closures may be imposed to protect fisheries and elk habitat. The Wyoming Game and Fish Department is conducting a study of big game response to oil and gas development on the Riley Ridge natural gas project area. Findings and recommendations from this study will be used in considering future development of minerals on big game ranges. No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

The implementation of management actions associated with wildlife habitat management will likely have positive effects by maintaining or improving existing habitat conditions for elk and other big game. This is due to the monitoring of elk and other big game, which will protect against population declines; the maintenance of crucial elk winter habitat in Deadline Ridge-Graphite area; certain activities that may be limited on elk and other big game feedgrounds; and road closures that may be implemented to protect elk and other big game habitat. These measure that monitor and protect elk and other big game and their habitat will protect food resources for wolves.

Determination

Implementation of wildlife habitat management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Livestock Grazing Management

Management Actions

The current grazing preference objective of 107,907 animal unit months (AUMs) will be maintained or increased through implementation of allotment management plans (AMPs), range improvements, and vegetation manipulation. If these measures fail to provide the grazing preference objective, while providing for protection of other resource values as established in the plan, livestock reductions may become necessary. Any adjustments in livestock grazing use will be made as a result of monitoring and in consultation with grazing permittees and other affected interests.

The 20,991 acres of unallotted forage on public lands will be considered for allocation on a case-by-case basis in accordance with RMP goals and objectives. The number of AUMs to be allocated will be determined after the lands have been evaluated. Adequate stock trails will be maintained to support livestock trailing needs. Adequate forage for wintering elk will be provided to the extent possible (population levels based on Wyoming Game and Fish Department 1987 population objectives) in the Bench Corral, Miller Mountain-Fort Hill, Riley Ridge, and Graphite elk winter ranges. In cases where adequate forage for wintering elk is not available, adequate forage could be provided through a combination of management practices, including livestock grazing systems, grazing adjustments, and vegetation manipulation. Livestock water developments on crucial elk winter ranges will only be allowed if they do not result in adverse impacts to the crucial range.

Initial categorization is 41 “I” allotments, 141 “M” allotments, and 26 “C” allotments. New allotment management plans (AMPs) will be written and implemented on “I” allotments. New AMPs or activity plans will require environmental analyses. All grazing systems will be designed to maintain or improve plant diversity. Specific objectives will be determined during AMP preparation to provide forage diversity for antelope, mule deer, and sage grouse as well as livestock. Grazing systems will be designed to limit forage competition for forbs and other desirable plants, particularly in the spring of the year.

Some allotments have very small acreages available for treatment. Because of the high cost of treating such small areas, they are not likely to be treated. Other allotments containing large acreages may not receive the total projected treatment due to resource considerations (e.g., sage grouse nesting areas and erodible soils). Acreage of brush control may increase or decrease on certain allotments depending on rangeland management needs addressed in AMPs and other activity plans.

All brush control projects will involve site-specific environmental analysis; coordination with affected livestock operators and the WGFD; and will include multiple use objectives for other resource uses including livestock, wildlife, and watershed.

Prescribed fire will generally be the preferred method of vegetation manipulation for the conversion of brushland to grassland. Wildfires occurring in areas with a fire prescription will be allowed to burn as long as they remain within the prescriptions and meet land use objectives. Other vegetation manipulation methods will be considered on a case-by-case basis.

To reduce streambank degradation, salt blocks for livestock and wildlife use will not be placed within 500 feet of live water, wetland, or riparian areas, unless activity plans show that it is necessary to meet management objectives.

Any forage increases realized from management prescriptions and range improvement practices will be allocated to wildlife, watershed, and livestock. Site-specific objectives for wildlife, watershed, and livestock grazing will be developed to identify each resource use to receive a forage allocation.

Actual forage allocation from forage increases will be based on site-specific analysis and must conform to the multiple use objectives of the activity plans. The allocation of forage resulting from treatments financed by permittees, as in “M” category allotments that do not have crucial wildlife ranges, will be evaluated on a case-by-case basis. More forage may be allocated to livestock grazing than to other resource uses, in accordance with the current federal grazing regulations, including consistency with the multiple use management objectives set forth in this document. Consultation with the affected parties will be necessary at the outset of planning for the project allocating increased forage to ensure satisfactory proportioning of the additional forage.

Monitoring of the range and the vegetation resource will be conducted at a level sufficient to detect changes in grazing use, trend, and range conditions. These data will be used to support and direct grazing management decisions consistent with national policy. Ecological range site condition mapping will be completed.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Domestic livestock grazing in riparian areas alters the structure and composition of aspen and riparian

shrubs that also are used by elk and other big game. Cattle grazing in broad floodplains and high-elevation meadows can compete with elk and other big game. Both of these actions reduce forage for elk and other big game, and thus also reduce food resources for wolves.

Determination

Implementation of livestock grazing management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Riparian Management

Management Actions

The objectives for riparian management will be to maintain, improve, or restore riparian value to enhance forage, habitat, and stream quality. Priority for riparian management will be given to those areas identified as Colorado River cutthroat trout habitat. Management actions may include reductions in livestock numbers, adjustments in grazing distribution patterns, fencing, herding, livestock conversions, etc. Unallotted public lands containing riparian areas will be managed according to the same objective, with emphasis on wildlife and watershed objectives, but not necessarily to the exclusion of livestock uses. Refer to management actions described under all other programs for accomplishing riparian objectives. Riparian management is an integral part of all resources and related management programs. Those activities that affect or are affected by riparian values, will take into account the riparian objectives and direction. Resource values and uses that affect or are affected by riparian values include: wildlife and fisheries habitat, forest resources, livestock grazing, ORV use, visual resources, cultural and historical resources, minerals exploration and development activities, lands and realty activities, watershed and soils resources, recreation uses, fire management, and access.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with riparian management including increased human presence and use of machinery or fire to implement management actions. Implementation of vegetation management actions are likely to result in positive effects to elk and other big game habitats in riparian areas, particularly foraging habitats, by the creation or expansion of habitats suitable to elk and moose.

Determination

Implementation of the riparian management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Wild Horse Management

Management Actions

The objective of wild horse management will be to resolve conflicts for water and forage between wild horses and other resource uses. No forage or other resources will be provided to wild horses. BLM does not actively manage for wild horses in this FO; management actions associated with wild horse management occurring on the resource area are limited to occasional herding, corralling, and transporting of horses.

No specific requirements or guidelines applicable to wolf mitigation are included in the management actions for this resource.

Effects Analysis

Management actions associated with wild horse management are not expected to detrimentally impact the behavior of wolves or foraging, denning, or travel habitats.

Determination

Implementation of wild horse management, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Forest Management

Management Actions

The objectives of forest management will be to provide a supply of forest products to the various segments of the public and to maintain or enhance other resource management objectives.

Consistent with forest management and other resource management objectives, the forested lands are classified into four management categories:

Category 1, Intensive Management, will include areas where the forested lands would be managed for multiple-use, but with emphasis placed on forest product utilization and forest management activities.

Category 2, Restricted Management, will include forested lands where wildlife, watershed, and recreation resource values will be emphasized and actions such as partial cutting, extended forest crop rotations, etc., or other restrictions to forest management, would be applied.

Category 3, Management to Enhance or Maintain Other Resources, will only allow forest management activities (e.g., harvesting or thinning) on lands in this category when such activities will benefit resources or values other than forestry or will promote public safety. All forestlands included in this category are not included in the forest management base or in timber harvest calculations.

Category 4, No Forest Management, includes all areas where forest management is excluded.

Approximately 24,223 acres of commercial conifer would be available for production of forest products. Of this 24,223 acres, approximately 20,836 acres would be subject to harvest method/equipment use and minimum cover level restrictions (Category 2). The remaining 3,387 acres would be unrestricted, except for general forest management guidelines applicable to all forest management activities (Category 1). Approximately 13,506 acres of woodland (Categories 1 and 2) will be available for forest product disposals on a demand basis. An additional 3,113 commercial conifer and woodland acres will be removed from the forest base (Categories 3 and 4). The 1,611 acres in Category 3 will be available for forest management activities when such activities are deemed necessary to maintain the integrity of the resource being protected (e.g., wildlife, watershed) or to promote public safety. All forestlands in categories 1, 2, and 3 will be available for emergency salvage of timber damaged or killed through insects, disease, wildfire, or other such events.

Forested lands in Categories 1 and 2 will be managed to harvest an estimated 18.2 million board feet of timber over a 20-year period. Average annual harvest level will involve approximately 137 acres, but may vary to meet individual sale area objectives, depending on proposed harvest methods and individual sale

conditions.

Sales of forest products (sawtimber, firewood, Christmas trees, posts, poles, and wildlings) will be made available to individuals and to commercial vendors. Forest product sales will be conducted on all forest areas, except where specifically excluded (e.g., the Rock Creek drainage and 7,636 acres in the Scab Creek area).

In addition to harvest, approximately 1,200 acres of precommercial thinning will occur during the 20-year period (BLM 1985a). Precommercial thinning projects will generally be designed to achieve an 8-foot spacing (e.g., roughly 680 trees per acre would be left uncut) and should not significantly affect cover levels.

Within the general forest management objective and guidelines, each of the following four management units has separate sub-objectives and planned actions. The Deadline-Pinegrove unit will be managed to give full protection to the Colorado River cutthroat trout in the Rock Creek drainage and to maintain October 1985 levels of forest cover for wildlife in the remainder of the unit. Approximately 953 acres will be available for harvest over a 20-year period. All forest management activities will be excluded in the Rock Creek drainage. A minimum of 90 percent of the conifer acreage in the Graphite and Riley Ridge crucial elk winter ranges will be maintained. Annual cover level fluctuations will not be allowed except for emergency salvage. No clearcutting or road construction will be allowed within 1,000 feet of Beaver Creek. Exceptions will be granted only if additional site-specific analysis verifies that such actions will not adversely affect crucial Colorado River cutthroat trout habitat.

The North Piney unit will be managed to give full protection to the elk feedgrounds and to maintain October 1985 levels of forest cover for wildlife, primarily elk. All forest management activities will be excluded from the Finnegan and North Piney elk feedgrounds, except when such management would be necessary to maintain the integrity of the feedground environment. Approximately 680 acres will be harvested for forest products over a 20-year period.

The Miller Mountain unit will be managed to provide full protection to forested portions of the Fort Hill-Fontenelle elk winter range and to maintain approximately 90 percent of the conifer acreage in the remainder of the unit in cover for wildlife. Forest management activities will be excluded from the Fort Hill elk winter range. Exceptions will be allowed for emergency salvage when the wildlife will benefit. Approximately 396 acres or 10 percent of the conifer base, excluding the Fort Hill winter range, will be harvested over a 20-year period.

The Eastside-Hoback unit will be managed to give full protection to the forested portions of the elk feedgrounds and to manage the remaining forested lands for forest products on an allowable harvest/sustained yield basis. Approximately 781 acres will be harvested for forest products over the next 20 years. Forest management activities will be excluded from the Franz and Scab Creek elk feedground, except for salvage and sanitation harvests when necessary to maintain the integrity of the feedground environment to benefit the elk.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Forestland management actions occur in coniferous habitats, which are the same areas used by wolves and elk and other big game. However, especially in winter, elk and other big game and wolves tend to concentrate in lower elevation areas (Callaghan 2002). Timber management creates a patchwork pattern of forest stands. These openings enhance grass, forb, and shrub growth favored by elk and other big

game, and thus timber management would favor wolves overall. There could be an impact to wolves if specific management actions occur at or near a den or rendezvous site, causing the wolves to abandon that site. Wolves suffer as a consequence of proximity to humans (from illegal snaring, poisoning, and shooting, among others) and new roads created for timber management can bring more people into a pack's territory, which would be harmful to wolves.

Determination

Implementation of forest management actions, as presented in the Pinedale RMP is **not likely to jeopardize the continued existence** of the wolf.

Wilderness Management

Management Actions

Proposed wilderness areas will be managed for wilderness values in accordance with the decision of Congress. The two wilderness study areas (WSAs) in the planning area, the Scab Creek WSA and the Lake Mountain WSA, were evaluated in two previous wilderness environmental impact statements (BLM 1981 and BLM 1983). As a result of these analyses, the BLM recommended the Scab Creek WSA for designation as wilderness and the Lake Mountain WSA for nondesignation as wilderness. Both recommendations are pending further processing and Congressional decision.

Until Congress acts, these WSAs will be managed under the "Interim Management Policy and Guidelines for Lands Under Wilderness Review" (BLM 1987b). Congressional decisions on the Scab Creek and Lake Mountain WSAs will be incorporated into the approved Pinedale RMP. Should Congress designate one or both of the WSAs (partially or entirely) as wilderness, the management of the designated areas will be for wilderness values, as described in the appropriate wilderness EIS. Should Congress not designate one or both areas (partially or entirely) as wilderness, the management of the nondesignated areas will be in accordance with the approved Pinedale RMP. The undesignated areas will lose their identity as WSAs and will be managed along with the adjoining area as prescribed in the approved Pinedale RMP.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with wilderness management will not result in detrimental impacts to wolf behavior or their habitats. These actions will result in positive effect to wolves by limiting harassment and disturbance.

Determination

Implementation of the wilderness management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Visual Resource Management

Management Actions

VRM classes have been established in line with overall resource management objectives of the approved

Pinedale RMP. These are subject to change and further definition as more inventories and evaluations are conducted. A program will be initiated to improve the visual quality of oil fields in the planning area by working with the companies to reduce the visual impact of existing facilities. Projects of all types within established VRM class areas will generally be required to conform with the objectives and characteristics of the classification, or the project will be modified in order to meet the VRM class objective. Short-term modifications in portions of visual class areas may be approved if a site specific environmental analysis determines that impacts would be acceptable. The VRM class areas will be monitored periodically for cumulative impacts that may potentially conflict with their classifications.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with visual resource management will not directly impact wolves or their prey. The exclusion of some activities and structures from designated view sheds may have a secondary positive effect of limiting disturbance of habitats that may be used by wolves or their prey.

Determination

Implementation of visual management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Off-Road Vehicle Management

Management Actions

The Bench Corral elk winter range will be closed to all ORV use, including over-the-snow vehicles, from November 15 through April 30. Lands around the Franz, Finnegan, Scab Creek, Fall Creek, and North Piney feedgrounds will also be closed to ORV use and unauthorized human presence from November 15 through April 30. The Deer Hills, Oil Field, and Mesa deer and antelope winter ranges will have a winter travel limitation restricting vehicle travel from November 15 through April 30 on an as-needed basis. These seasonal limitations will be implemented in cooperation with the Wyoming Game and Fish Department during severe winters or periods of disturbance of the wildlife wintering in these areas of concern. One hundred twenty acres in the Holden Hill area will be closed to all ORV use.

In general, off-road vehicle use will be monitored periodically to determine actual use and public demands. Monitoring of high density roaded areas will be conducted as described in the section on Access Management. The Desert General Use area will remain open to generalized ORV uses. This is an area of over 224,000 contiguous acres of public land. The Desert Open Area will be monitored to determine if unacceptable impact levels are occurring or being approached, which will require that ORV use be re-evaluated and limited accordingly.

Effects Analysis

Actions associated with visual resource management will not directly impact wolves or their prey. The exclusion of some activities and structures from designated view sheds may have a secondary positive effect of limiting disturbance of habitats that may be used by wolves or their prey.

Determination

Implementation of visual management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Recreation Management

Management Actions

Management emphasis will be placed on the current recreation management areas including Scab Creek, the Green and New Fork rivers, Oregon Trail routes, and Boulder Lake. Recreation facilities will be installed where needed to accommodate the anticipated recreation uses and use levels and to provide for adequate public health and safety.

The order of priority for recreation management will be:
Congressionally designated areas,
Major rivers and lakes where BLM has clear jurisdiction,
Areas with outstanding recreation resource values not already provided for in the area, and
Areas where the recreation capacity is regularly exceeded, threatening other important resource values.

Cooperative recreation projects and those with contributed funding can be given priority for development in conformance with established recreation objectives and priorities. Withdrawals from exploration and development of locatable minerals will be pursued, as necessary, on developed and semi-developed recreation sites (currently about 585 acres). Recreation management for the Scab Creek area, the Green and New Fork rivers, and the Oregon Trail routes will emphasize maintaining or improving the quality of the sites and the recreation experience. Public lands along the Green and New Fork rivers will be managed to provide fishing and floatboating opportunities. Necessary facilities will be developed to provide for protection of users and the resources. Boulder Lake will be established as a special recreation management area and related recreation facilities will be developed to improve public access and use opportunities. A maximum 16-day camping limit will be implemented throughout the planning area. Areas requiring shorter limits will be posted. Written authorizations will be required for longer periods. A temporary, no overnight camping stipulation may be imposed in an emergency. Where applicable, recreation facilities will be developed and managed in a manner that will maintain, restore, and improve riparian values. Special recreation permits, commercial recreation uses, and major competitive recreation events will include mitigation developed to ensure the protection of other resources in accordance with objectives of all resource values involved.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with visual resource management will not directly impact wolves or their prey. The exclusion of some activities and structures from designated view sheds may have a secondary positive effect of limiting disturbance of habitats that may be used by wolves or their prey.

Determination

Implementation of visual management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Wild and Scenic Rivers Management

Management Actions

It was determined that five upstream public land parcels along the Green River review segment meet the Wild and Scenic River (WSR) suitability factors and should be managed to maintain or enhance their outstandingly remarkable values for any possible future consideration for inclusion in the NWSRS. The suitable determination is based on the unique qualities of the diverse public land resources and their regional and national significance, making them worthy of future consideration for addition to the NWSRS.

Interim management practices for the five public land parcels along the Green River meeting the scenic classification (involving 8.56 miles along the river) will focus on maintaining or enhancing the outstandingly remarkable scenic, recreational, and historic values and the relatively unmodified character of the area in a near-natural setting. Any activities that would conflict with this objective are prohibited. Some intrusions on the public lands involved may be allowed if they are not readily evident or are short-lived, and do not adversely affect maintaining the scenic classification.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with wild and scenic river management are not expected to detrimentally influence wolf behavior or impact suitable habitats. These actions will likely result in positive effects by maintaining or enhancing habitats suitable for wolves and their prey.

Determination

Implementation of wild and scenic rivers management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Cultural Resource Management

Management Actions

Cultural resource management activity plans (such as the Oregon/Mormon Pioneer National Historic Trails Management Plan) will be completed and implemented to identify, salvage, and protect cultural and historical sites. Activity plans will be prepared for any current or future sites listed on, or determined eligible for the National Register of Historic Places (NRHP), including sites 48LN300, 48SU350, and 48SU301, and the Overlook Rock Shelter, the Aspen Stone Circle site, the Cora Butte alignment site, the Willow Lake site, and the Boulder Lake site. Site-specific management prescriptions will be developed in the activity plans. Significant cultural resource sites will be nominated to the National Register of Historic Places. As necessary, withdrawal from exploration and development of locatable minerals on significant cultural resource sites will be pursued.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with cultural resource management may detrimentally affect wolf behavior by causing wolves to avoid or abandon areas where management actions are implemented. These potential impacts are dependent upon several factors including the number of people involved with each field effort, the time of year, duration of field activities, use of heavy machinery versus hand tools, and type of wolf habitat affected. Surface disturbing activities associated with cultural resource investigations can vary in size and degree of disturbance. Denning and rendezvous sites are the most sensitive habitat elements for wolves, as these are often used repeatedly over the years and are relatively limited across the landscape. Disturbance and destruction of denning habitats is possible, however, the likelihood is extremely low.

Determination

Implementation of cultural resource management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Lands and Realty Management

Management Actions

Prior to taking any disposal action, an environmental analysis will be conducted on the proposal and the involved lands will be evaluated for compliance with the disposal criteria listed in and for consistency with objectives of this RMP. Approximately 6,400 acres have been identified as suitable for future consideration for disposal, and another 14,500 acres have been identified as suitable for consideration for disposal only by exchange. Proposals to dispose of any other BLM-administered public lands will be considered and evaluated on a case-by-case basis. Special attention will be given to retaining enough public lands at the Cora Y highway crossing, at the south end of Fremont Lake, and at other important wildlife migration routes to provide for free movement of migrating big game animals. Acquisition of nonfederal lands will be pursued by BLM, if needed, to accomplish management objectives of this RMP. Such acquisition will primarily be considered in areas of predominantly federal ownership, when other management options such as cooperative agreements are not available, and then primarily through exchange. Lands actions (e.g., exchanges) will be pursued to enhance and maintain key wildlife habitats. Land exchanges to acquire state and private lands in crucial habitats in important and predominantly federal management areas (e.g., Rock Creek ACEC, New Fork Potholes, key riparian areas) will be pursued.

Desert Land Entry petition applications will be disqualified when the public lands are identified as:

Lands within the capability classes that the Department of Agriculture, Agricultural Stabilization and Conservation Service, is seeking to remove from cultivation under the Conservation Reserve Program.

Lands that the Department of the Agriculture, Soil Conservation Service show as being "nonirrigable."

Lands identified as sensitive, unique, or necessary to fulfill the management objectives of this RMP.

Agricultural land entry petition applications will also be disqualified when the public lands would be utilized for the growth of government price-supported crops, or when use of water supplies would deplete an underground water supply beyond its annual recharge capability, thus threatening existing water users.

Whenever necessary, withdrawals in support of other resource management objectives and actions will be

pursued. Public lands within active livestock driveways that are continuing to serve their designated purpose, will continue to be segregated from all forms of disposal under the public land laws. The withdrawals for stock driveways that are not serving their designated purpose will be terminated. Mineral locations on stock driveways will be handled under 43 CFR 3815. Disposal proposals that will not be compatible with the continued use or purpose of stock driveways will not be approved. Existing land withdrawals (held by agencies other than BLM) currently encumbering public lands will be reviewed to determine the need for continuation, modification, revocation, or termination of the withdrawals. Classification and Multiple Use Act retention and disposal classifications (Orders W-19140, W-25810, and W-12668) in Sublette and Lincoln counties will be terminated. In areas covered by these orders, discretionary management under the provisions of the Federal Land Policy and Management Act (FLPMA) will be consistent with the provisions of the RMP.

Areas closed to mineral leasing, having a no surface occupancy (NSO) restriction, or other otherwise identified as unsuitable for surface disturbance or occupancy in other sections of this RMP will be managed as avoidance or exclusion areas for rights of way. Such areas include, but are not limited to, recreation and cultural sites, the Rock Creek ACEC, and the Deadline Ridge-Graphite evaluation area. However, following a supporting environmental analysis, some types of rights of way projects may be allowed in such areas if they: a) would not create substantial surface disturbance; b) would be located in areas with a high potential for reclamation; c) would have impacts which would be temporary in nature; and d) would be compatible with the resource values being protected.

Areas requiring mitigations and restrictions for surface-disturbing activities will be managed as restricted areas for rights of way. Restrictions include, but are not limited to, seasonal restrictions for wildlife, sensitive watersheds, steep slopes, ORV designations, and other measures necessary to prevent degradation of cultural, historical, and recreational sites. Restricted areas for rights of way include wildlife crucial winter ranges, the Beaver Creek ACEC, the Upper Green River Special Recreation Management Area (SRMA), and the Soap Holes area. Areas that are not identified as avoidance, exclusion, or restriction areas are considered open to rights of way. Two transportation/transmission corridors are designated. Actual corridor widths will be flexible within the constraints provided in the various resource objectives of the RMP.

Corridors are preferred routes for transportation and transmission facilities. Identification of corridors does not preclude location of transportation and transmission facilities in other areas, if environmental analysis indicates that the facilities are compatible with other resource values and objectives. Further identification of corridors does not mandate that transportation and transmission facilities will be located there if they are not compatible with other resource uses, values, and objectives in and near the corridors or if the corridors are saturated. Each right of way application will be reviewed and analyzed using the environmental data that exist for the area as a basis to determine compatibility with existing uses and resource values.

No specific requirements or guidelines applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Management of existing access and acquisition of new access to lands administered by BLM will not alter wolf behavior. Improved or new access to lands under new administration may result in positive effects to wolf habitats by securing these lands and managing them under BLM provisions.

Lands not under BLM jurisdiction that are suitable or occupied wolf habitats may be targeted for acquisition and subsequent management by BLM. Such acquisitions would provide benefits to wolves

that may not be afforded under non-federal ownership.

Determination

Implementation of land resource management actions, as provided in the Pinedale RMP (1988) is **not likely to jeopardize the continued existence** of the wolf.

Access Management

Management Actions

No specific requirements or guidelines applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Development of new and expansion of existing access to lands administered by BLM will create new corridors designated and managed to accommodate power lines, communication towers, pipelines, and roads. Roads can be a source of increased human activity, which can be a source of illegal snares, trapping, and shooting of wolves, and in mortality to resulting from collisions. The degree of these impacts is correlated with traffic volume and speed, and road width.

Determination

Implementation of access management actions, as presented in the Pinedale RMP (1988), is **not likely to jeopardize the continued existence** of the wolf.

Fire Management

Management Actions

The objective of fire management is to protect public safety, life, and property while providing the maximum benefits of both prescribed fire and wildfire to overall resource management. Fire will be considered a vegetative manipulation option to:

Convert brush to other desired species,
Rejuvenate desired species,
Increase forage,
Increase vegetation nutrient value and palatability,
Promote wildlife habitat diversity,
Improve vegetative cover on areas with insufficient protective ground cover, and
Maintain or improve range, wildlife habitat, and watershed condition.

Fire will also be considered a management option for disposal of timber slash, seedbed preparation, hazard reduction, control of disease or insects, thinning, or species manipulation in support of forest management objectives. In preparing activity plans, consideration will be given to fire applications in meeting resource management objectives. A fire management action plan will be written for the planning area. Specific boundaries and fire management prescriptions will be consistent with or in support of the other identified resource values and management objectives.

Areas will be identified where a prescribed set of conditions will be acceptable in the event of an ignition. Prescribed fires will generally be confined to 200 acres or less in areas where current vegetation stages are desirable. Fire protection on public lands will be managed by taking appropriate suppression actions through the fire management plan. Resource and operational support for presuppression and suppression planning will be coordinated with the Forest Service, Sublette County Sheriff's Office, Wyoming State Forestry Division, and local fire protection districts.

Wilderness areas will be managed as prescribed fire areas. Fire suppression in wilderness areas requires restraint in suppression methods. In any designated wilderness areas, the fire management objective will be to manage fire in ways that will cause the least degradation to wilderness values.

Prescribed burning will be conducted so as to:

Not violate ambient air quality standards,
Avoid visibility impairment,
Minimize public nuisance, and
Minimize smoke intrusions into sensitive areas.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Fire management actions, particularly actions associated with wildfire suppression and prescribed fire, whether planned or unplanned, have the potential to occur in habitats occupied by wolves. Fire exclusion alters the natural mosaic of successional stages that promote open habitats and mixed shrublands favored by elk and other big game. This limits the function of fire in perpetuating vegetation conditions conducive to promoting elk and other big game forage.

Prescribed burns have typically been conducted to promote elk and other big game foraging areas by opening up forests and enhancing development of mixed shrubs. This would be beneficial to wolves by improving habitat for wolf prey. Prescribed fires in the vicinity of den sites could cause wolves to abandon the den site. This event is relatively unlikely.

Determination

Implementation of fire management actions, as presented in the Pinedale RMP (1988) is **not likely to jeopardize the continued existence** of the wolf.

Areas of Critical Environmental Concern

Management Actions

The objective for managing the Rock Creek ACEC is protection of the Rock Creek drainage to assure quality aquatic habitat for the sensitive Colorado River cutthroat trout and to provide crucial winter range for a portion of the Piney elk herd. The entire ACEC area and the Deadline-Graphite elk winter range area (approximately 17,100 combined acres) will be deferred from mineral leasing until a mineral and wildlife evaluation is completed. The entire ACEC will be managed as a right of way avoidance or exclusion area, where rights of way will not be allowed unless a supporting environmental analysis indicates that the action meets the objective for the ACEC, minimal impacts would occur, and(or) the action would benefit the Colorado River cutthroat trout or elk habitat.

A No Surface Occupancy (NSO) restriction for leasable minerals and other surface-disturbing activities will be applied in the 4,200-acre Rock Creek drainage (unless activities are for the purpose of benefiting the Colorado River cutthroat trout). Geophysical exploration activities in this area are restricted to portable methods only. The use of explosive charges will be prohibited if analysis determines that unacceptable adverse resource impacts would result. If analysis indicates this level of protection is necessary, the drainage area will be closed to exploration and development of locatable minerals, and a withdrawal from mineral location and surface entry will be pursued. Livestock grazing and related improvements will continue to be allowed, provided no adverse affects occur to the Rock Creek drainage. No forest management activities will be allowed within the drainage. The drainage will be managed as a Class I VRM area and will be closed to ORV use, including over-the-snow vehicles (43 CFR 8340.0-5).

Approximately 1,000 acres of the ACEC (that portion outside the drainage) will be evaluated to identify any locations where surface occupancy can be allowed. Geophysical exploration activities in this area will be evaluated on a case-by-case basis and will be restricted if analysis determines that unacceptable adverse impacts would occur to the water quality, fisheries, wildlife, recreation, or visual values in the area. This portion of the ACEC will be open to exploration and development of locatable minerals. A plan of operations will be required for any locatable minerals activities in the area. This portion of the ACEC will be managed as a Class II VRM area, and ORV use will be limited to existing roads and trails with seasonal restrictions to protect wintering wildlife.

The objectives for managing the Beaver Creek ACEC are to assure quality aquatic habitat for the sensitive Colorado River cutthroat trout and to protect elk calving habitat. The area is open for consideration of mineral leasing and related activities. All vehicle use, including geophysical exploration vehicles, will be limited to existing roads and trails. This area will be closed to the use of explosive charges if analysis determines that unacceptable adverse impacts would occur to the water quality, fisheries, wildlife, recreation, or visual values in the area. The Beaver Creek ACEC will be managed to maintain, improve, or restore riparian habitat conditions. The ACEC will be managed as a Class III VRM area.

A detailed activity plan will be prepared to establish guidelines for uses that could affect or jeopardize habitat quality for the Colorado River cutthroat trout and elk calving. Management prescriptions in the activity plan will include identifying specific transportation routes to reduce the potential for spills of toxic materials, and needs for seasonal use or other types of restrictions, in compliance with the decisions stated above.

Surface disturbance within 1,000 feet of the streams and on slopes of 25 percent or greater will be prohibited. Partial timber cutting will be allowed provided that no adverse impacts will occur to the Colorado River cutthroat trout. Clearcutting or road construction within 1,000 feet of Beaver Creek will not be allowed. Exceptions will be granted only if additional site-specific analysis verifies that such actions will not adversely affect crucial Colorado River cutthroat trout habitat. Roads and rights of way will follow existing alignments unless design criteria will preclude adverse impacts to the trout and elk calving habitat. Stream crossings will be limited to lower elevations and gentler slopes. Use of equipment and vehicles, including geophysical exploration activities, will be allowed if consistent with the objectives of the ACEC.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

The two ACECs are designed to protect, manage, or enhance various special resources in the Cody FO.

Many activities are still allowed within the ACECs, but some activities are limited or excluded, to preserve the specialized uniqueness designed to be protected or managed through ACEC designation. By limiting or excluding these activities, impacts from these activities to wolves would be reduced or excluded. Impacts from activities allowed to occur in these ACECs will be addressed in their respective sections in this document. In general, management of ACECs limiting or excluding various activities would have a beneficial impact on wolves.

Determination

Implementation of the ACEC management as described in the Pinedale RMP (1988) is **not likely to jeopardize the continued existence** of the wolf.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Pinedale RMP management actions.

TABLE 6: SUMMARY OF DETERMINATIONS FOR THE PINEDALE RMP

Resource	Determination
Surface Disturbance Restrictions	Not likely to jeopardize the continued existence of the species
Air Quality	Not likely to jeopardize the continued existence of the species
Minerals	Not likely to jeopardize the continued existence of the species
Natural History and Paleontological Resources	Not likely to jeopardize the continued existence of the species
Soils and Watershed	Not likely to jeopardize the continued existence of the species
Wildlife Habitat	Not likely to jeopardize the continued existence of the species
Livestock Grazing	Not likely to jeopardize the continued existence of the species
Riparian	Not likely to jeopardize the continued existence of the species
Wild Horse	Not likely to jeopardize the continued existence of the species
Forest	Not likely to jeopardize the continued existence of the species
Wilderness	Not likely to jeopardize the continued existence of the species
Visual Resources	Not likely to jeopardize the continued existence of the species
Off-road Vehicle	Not likely to jeopardize the continued existence of the species
Recreation	Not likely to jeopardize the continued existence of the species
Wild and Scenic Rivers	Not likely to jeopardize the continued existence of the species
Cultural Resources	Not likely to jeopardize the continued existence of the species
Lands and Realty	Not likely to jeopardize the continued existence of the species
Access	Not likely to jeopardize the continued existence of the species
Fire	Not likely to jeopardize the continued existence of the species
Areas of Critical Environmental Concern	Not likely to jeopardize the continued existence of the species

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Pinedale planning area.

Potential effects that could affect wolves or their habitats in the Pinedale FO include the following:

Subdivision development along rivers (especially along the New Fork and Green Rivers)
Natural gas development south of Pinedale
Sand and gravel operations along river corridors

Certain components of these projects, if completed, could directly or indirectly affect wolves or their habitats. In addition to the cumulative impacts resulting from the BLM activities described previously, implementation of the Pinedale RMP could add further impacts to the wolf that may result from current non-federal actions.

PINEDALE FIELD OFFICE: SNAKE RIVER RMP

The Snake River RMP was initiated in 1999. The Snake River planning area occupies 1,345 acres within Pinedale Field Office. At the time this biological assessment was prepared, the Snake River RMP was not finalized.

Environmental Baseline and Existing Conservation Measures

See the Pinedale Field Office for the general discussion of this section.

Analysis of Proposed Management Actions and Effects

The following text briefly summarizes the activities and any specific mitigation measures associated with management actions in the Snake River Planning Area. The Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities will be applied to all surface disturbing or disruptive activities. As described previously in this document, these guidelines include timing limitations and restrictions on surface occupancy. Refer to the Draft Snake River RMP for a complete explanation of each prescription.

Climate and Air Quality Management

Management Actions

Air quality program actions consist of monitoring efforts in cooperation with USFS, Wyoming Department of Environmental Quality (DEQ), and the U.S. Environmental Protection Agency (EPA). Monitoring stations are not located on lands under BLM jurisdiction, although the Jackson weather station is within the Snake River planning area. Monitoring for air quality components, including carbon monoxide, nitrogen dioxide, sulfur dioxide, ozone, particulate matter, visibility, and atmospheric deposition, is conducted from various facilities throughout Wyoming. The nearest station to the planning area is either in Yellowstone National Park (YNP) or Pinedale.

The development of additional river access points and recreation sites on lands under BLM administration would also contribute to noise and dust levels in the planning area. Smoke from campfires at primitive campgrounds would likely affect local air quality measures during the summer months, when campground use is highest.

Effects Analysis

Actions related to climate and air quality management will not result in negative impacts to wolf behavior or habitats. Implementation of these management actions will likely result in maintaining or improving environmental conditions throughout the FO, which may have secondary benefits to wolves and their prey.

Determination

Implementation of air quality management actions, as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Cultural and Natural History Resources Management

Management Actions

The planning area contains both prehistoric and historic cultural resources. It is not known if the planning area contains traditional cultural properties or sites considered sensitive to modern Native Americans. Within the planning area, formal inventory work conducted by the BLM is limited. Preserved sites under BLM jurisdiction are few in number because of the recent age of many of the Snake River floodplain sediments. Prehistoric campsites are preserved in alluvial soils on the higher terraces of the Snake River. The soils in the river channel include alluvial loams and extensive river-deposited quartzite cobbles. When cobbles dominate the surface, the potential for finding buried sites is low. The NPS (YNP 1997) indicated that regular changes in the river channel would tend to destroy or displace prehistoric sites in the Snake River floodplain. There is a low probability of locating rock art on public lands along the Snake River, because of the lack of sandstone cliffs suitable for the inscription of petroglyphs.

The potential for locating historic period Euro-American sites in the planning area is good. The Snake River is famous for periodic flooding and many dikes, levees, water diversions, bank stabilizations, and other flood control structures were constructed during the historic period. Other possible historic period sites include stock maintenance sites, place mining sites, bridge remains, ferries, historic trash scatters, and other cultural material remains over fifty years of age. Future inventory may include an assessment of the area's historic landscape potential.

In recent years, there has been an increased interest in the archaeology near Jackson, Wyoming. Spurred by a series of NPS, USFWS, and USFS projects there is an increased understanding of the prehistory of the area. Most of these projects have concentrated on large sites where mitigative excavations have taken place.

Effects Analysis

If an archeological site were discovered, the associated inventory activities would be localized and limited to no more than a few acres. Actions associated with an archeological dig site include access or road building, increased vehicle traffic, and increased human activity. Human activities associated with class II or class III inventories would not disrupt normal wolf behavior. In addition, this effect is expected to be limited in duration and severity.

Determination

Implementation of cultural and natural history resource management actions as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Fire Management

Management Actions

Fire frequency during recorded history has been low, due to the moist riparian environment which keeps lightning caused fires from spreading. Wildland fire ignitions on the BLM parcels have been infrequent, and are generally suppressed at 0.1 acre or less.

In accordance with the 2001 Federal Wildland Fire Management Policy, firefighter and public safety are

the first priority in fire management. All of the Snake River parcels fall into Category A – Areas where wildfire is not desired at all. Suppression is required to prevent direct threats to life and property. The USFS has fire protection responsibility for the BLM-lands in Teton County. Under a mutual aid and protection agreement, Teton County is a first responder to any wildland fire incident on BLM-lands.

Use of prescribed fire was eliminated from detailed analysis because of the scattered nature and small size of the parcels, and the age of most of the cottonwood stands. In addition, spotted knapweed (*Centaurea maculosa*), a noxious species present on most or all of the public land parcels, will increase following fire. Control of prescribed fires would be difficult due to the lack of natural firebreaks; fire control activities could cause erosion and siltation of the Snake River. Most of the BLM parcels also are near private homes, barns, and meadows, making fire control extremely important; the expanded control measures required in these situations would be cost-prohibitive.

Effects Analysis

Fire management actions, particularly actions associated with wildfire suppression and prescribed fire, whether planned or unplanned, have the potential to occur in habitats occupied by wolves. Fire exclusion alters the natural mosaic of successional stages that promote open habitats and mixed shrublands favored by elk and other big game. This limits the function of fire in perpetuating vegetation conditions conducive to promoting elk and other big game forage.

Prescribed burns have typically been conducted to promote elk and other big game foraging areas by opening up forests and enhancing development of mixed shrubs. This would be beneficial to wolves by improving habitat for wolf prey. Prescribed fires in the vicinity of den sites could cause wolves to abandon the den site. This event is relatively unlikely.

Determination

Implementation of fire management actions, as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Hazardous Waste and Waste Management

Management Actions

In the unlikely event hazardous materials are released into the environment, a rapid and possibly sustained effort may be necessary to secure and remove or neutralize the hazardous material. Surface disturbing activities for emergency response may require a high level of human presence in areas typically void of human activity. Non-emergency removal of contaminants would be scheduled at such a time that would not cause, or would minimize adverse impacts to wildlife.

Effects Analysis

Activities associated with hazardous materials management will be restricted to roadways, where wolves will likely have become accustomed to some degree of human disturbance. These activities will likely be very limited in scale and infrequent in occurrence.

Determination

Implementation of hazardous materials management actions, as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Lands and Realty Management

Management Actions

The lands and realty management objectives are to support multiple-use management goals of other BLM resource programs, respond to public requests for land use authorizations, sales, and exchanges, and acquire access to serve administrative and public needs. Maintaining "open public access to…natural resource areas," including the Snake River, for vehicle use, biking, hiking, horseback riding, and skiing is a community goal described in the Jackson/Teton County Comprehensive Plan of 1994.

Public lands in the area consist of relatively small tracts with fair accessibility. While some parcels are easily accessed, other can be reached only from the river channel. Parcels that have good access include some of the largest parcels and the most valuable for recreation, including parcels 9-10, 11-14, 17-19, 23, and 26. Parcels 3 and 8 are accessible through Grand Teton National Park (GTNP), but only by hiking from public roads within the park. Parcel 23 is accessible from the Fall Creek Road. Parcel 27 can be accessed from US Highway 189/191; however, it contains a trash transfer station and access is controlled by Teton County. Parcels 4-7, 15-16, 20-22, and 24 can only be accessed from the river, and it is extremely difficult to identify the parcels from the river channel.

The BLM is responsible for administering mineral exploration and development on 15,123 acres of federal mineral estate within the planning area. This mineral estate, which is mostly outside the river corridor, underlies privately owned lands.

According to the Jackson Hole Land Trust website, roughly 9,000 acres of conservation easements, along with some private lands, have been purchased in and around Jackson Hole for the preservation of critical wildlife habitat, open space and scenic vistas, and historic ranching heritage. The Jackson/Teton County Comprehensive Plan of 1994 describes the acquisition of conservation easements as "an effective programmatic strategy for accomplishing natural resource protection and preservation of community character."

Rights of way proposals would be addressed on a case-by-case basis, with emphasis on avoiding conflict or sensitive areas. The location of rights of way to cross the Snake River on public land would only be allowed at the Wilson Bridge and the South Park Bridge. The following would be right of way exclusion areas: raptor nesting and concentration areas; documented occurrences and associated habitats of BLM Wyoming sensitive species; ESA designated critical habitat. The following would be right of way avoidance areas: big game crucial winter habitat; aquatic and wetland habitat; BLM Wyoming sensitive species habitat; important cultural resources that are listed or eligible for listing on the National Historic Register; and scenic areas identified as Visual Resource Management (VRM) Class II areas.

There are no utility corridors designated on the lands under BLM jurisdiction within the planning area. No interest has been expressed in developing utility corridors on the BLM parcels because they are disconnected, interspersed with private lands, and many are located in riparian habitats. BLM-lands do not contain suitable conditions for communications sites. The BLM has granted several rights of way in the past for utilities and access roads. It is anticipated that sand and gravel development activity and the population growth in the area will continue to create a demand for rights of way.

Withdrawals are used to preserve sensitive environmental values, protect major federal investments in facilities, support national security, and provide for public health and safety. They segregate a portion of public lands and suspend certain operations of the public land laws, such as desert land entries or mining claims. Land withdrawals can also be used to transfer jurisdiction to other Federal land-managing agencies.

Effects Analysis

Management of existing access and acquisition of new access to lands administered by BLM will not alter wolf behavior. Improved or new access to lands under new administration may result in positive effects to wolf habitats by securing these lands and managing them under BLM provisions.

Lands not under BLM jurisdiction that are suitable or occupied wolf habitats may be targeted for acquisition and subsequent management by BLM. Such acquisitions would provide benefits to wolves that may not be afforded under non-federal ownership.

Corridors are designated and managed to accommodate power lines, communication towers, pipelines, and roads. Roads can be a source of increased human activity, which can be a source of illegal snares, trapping, and shooting of wolves, and in mortality to resulting from collisions. The degree of these impacts is correlated with traffic volume and speed, and road width.

Determination

Implementation of land resource management actions, as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Livestock Grazing Management

Management Actions

Livestock grazing is authorized in four grazing allotments totaling 544 acres in the planning area. The level of authorized use is 300 animal unit months (AUMs). Sixty-two AUMs are authorized for spring grazing, subject to an annual authorization. The remaining use takes place primarily during the summer on 10-year grazing leases issued under section 15 of the Taylor Grazing Act. Only a few range projects have been constructed in these allotments. There are also about 529 acres of unallotted public lands.

No grazing allotment management plans or grazing systems have been implemented in the planning area. Some rangeland monitoring information, including actual use records, utilization studies, and field observations, has been collected and the condition of riparian areas has also been assessed. All of the allotments have been evaluated for conformance with the Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management (**Appendix B**). The Walton allotment (Parcels 9-10) failed to meet standard #4 because of past heavy grazing use on a portion of the allotment, which has reduced the health of the native shrub community. Management changes intended to bring the allotment into compliance with the standard have been established. The Porter Estate allotment (parcel 21) also failed standard #4, although a cause could not be determined. Monitoring is ongoing to determine a course of action that will address this condition. The Snake River Ranch allotment (parcels 23 and 24) met all the Standards, although parcel 24 (which is not protected by the levee) generally has been lost to river erosion. While parcels 15-16 are also under grazing lease to the Porter Estate, they have not been grazed by livestock in recent years.

Effects Analysis

Domestic livestock grazing in riparian areas alters the structure and composition of aspen and riparian shrubs that also are used by moose and elk. Cattle grazing in broad floodplains and high-elevation meadows can compete with elk and other big game.

Determination

Implementation of livestock grazing management actions, as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Minerals and Geology Resources Management

Management Actions

There have been no oil and gas discoveries near the planning area, and no oil and gas wells have been drilled within the planning area. The nearest wells to the planning area, all of which were dry holes, were drilled along the Darby Thrust Fault in and around Hoback Junction, about 14 miles south of Jackson. The potential for hydrocarbon resources within the planning area north of the Cache Creek Thrust Fault is unknown. The potential for hydrocarbon resources in the southern portion of the planning area is moderate.

Evidence of volcanic activity is present in the planning area. Numerous hot and warm springs in and around the planning area provide evidence of hot magma at depth. The geothermal potential within the study area is moderate to good. However, the potential for commercial development of this resource is low. Legislation has been introduced at the state and federal level to protect geothermal resources within the greater Yellowstone ecosystem from drilling and development. Hot springs are located on the periphery of the planning area on state and private lands.

No economic coal deposits exist within the planning area. The only coalmine known to exist within the area was on the northwest side of Boyles Hill. The potential for the occurrence of these leasable minerals, including sodium, potassium, and oil shale, is low. No deposits are known to exist within the planning area.

Outcrops of the Phosphoria Formation in the Meade Peak Member, East and West Gros Ventre Buttes, and south of Snow King Mountain within the planning area, and Teton Pass (west of the planning area) are limited in extent because of steep bedrock dips of 15 to 60 degrees. Because of these limited exposures and steep dips in mountainous terrain, it is unlikely that any phosphate would be developed.

The Snake River channel primarily consists of material from glacial outwash deposits from the upstream portion of the Snake River, and landslide material from the Gros Ventre and other landslides located along the two rivers. The most important mineral material occurring within the planning area is gravel. Demand for sand and gravel in Jackson Hole is increasing as the number of homes, businesses, and roads in the area continues to grow. In the past, the planning area contained many gravel pits and quarries to meet the needs of highway, county, and private road construction, and levee construction and maintenance. Today, the planning area contains only three gravel operations. Two gravel companies operate on private lands along the Snake River. The third operation was located north of the South Park highway bridge to supply gravel for widening U.S. Highway 189 south of Jackson. No sand or gravel is currently commercially produced from federal lands or mineral estate in the planning area.

In portions of the river where gravel is currently being extracted from private lands, high river flows in the spring have been replacing the gravels extracted during the previous year. This creates a new supply of gravel each year in the same location.

Gold is the primary locatable mineral deposit within the planning area. The potential for gold within the river gravel is low. The gold occurs as minute flakes and flour within large volumes of sand and gravel. Recreational panning may occur on BLM-lands in the planning area. The source area for the gold is unknown.

All public lands are open to exploration for locatable minerals except those withdrawn to protect other resource values and uses or those lands with acquired mineral status. BLM has limited management authority over mining claim operations conducted under the General Mining Law (GML) of 1872. These operations are managed using the surface regulations in 43 CFR 3809. Activity authorized under the GML is not subject to many of the stipulations that are used in the salable and leasable mineral programs to protect sensitive resources from surface disturbance caused by mineral development. There are no active mining claims within the planning area; however, claims have been located in the past. Several claims were located in the late 1960s, with the latest activity in 1982. For the most part, these were placer claims located along the Snake River for gold but all claims in the planning area have been abandoned. The potential for placer gold development is low within the planning area, since it is unlikely that sufficient amounts of gravel could be mined to make an operation profitable. No past placer operations in Jackson Hole Valley are known to have yielded economically profitable amounts of gold.

Actions associated with locatable minerals include surface disturbance for mining, reclamation, and construction of access roads, buildings, and utility lines. An EA is required prior to any significant action. Small-scale mining may occur in the planning area but individual casual use activities do not require an EA unless activities become significant. All work must be reclaimed prior to bond release from the DEQ.

Approximately 5,937 acres of public lands and mineral estate described in public land order (PLO) 7143 (published on June 1, 1995 in the Federal Register) are closed to mineral or surface entry until June 1, 2005. As explained in the PLO, “mineral or surface entry” pertains to activities such as the staking and development of mining claims for locatable minerals and desert land entry, but does not apply to the sale, exchange, or transfer of public lands; mineral leasing; or the extraction of sand and gravel through sales and permits. Public land and mineral estate not included in the area described in PLO 7143 are currently open to locatable mineral or surface entry. Under the Preferred Alternative, all 15,123 acres of BLM-administered mineral estate would be closed to locatable mineral entry.

Effects Analysis

Construction of roads and pads, and increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wolves and increased intrusion by humans. Association with humans leads to higher wolf mortality due to easier access for illegal trapping, snaring, and shooting. Wolves avoid areas with high road densities. A road density threshold of 0.45 km/km2 best classified pack and nonpack areas in one study (Mladenoff et al. 1995, 1999).

Determination

Implementation of minerals management actions, as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Off-Highway Vehicle Management

Management Actions

Most of the existing roads on the BLM parcels are part of the U.S. and/or Teton County transportation system. Off-highway vehicles (OHVs) used in the planning area include snowmobiles, motorcycles, all-terrain vehicles, and mountain bikes. OHV use on the BLM parcels is minimal, due to limited public road access and is restricted to existing roads and trails, including levees. Some exceptions may include tasks necessary for retrieval of harvested big game, fire fighting activities, or hazardous/waste material removal. However, some unauthorized trails are becoming established. Motorized boating occurs, but is currently not a popular activity. Mountain biking on the levees is a common recreation activity. Some use also occurs off road and this contributes to the perpetuation of unauthorized trails.

The BLM recognizes the use of bicycles and other human-powered, mechanized conveyances as appropriate recreational activities. Federal regulations do not specifically address management of non-motorized vehicle use. There are substantial differences in the types of use, associated impacts, and management approaches between non-motorized and motorized vehicle activities. Until a national strategy and rules for non-motorized vehicle use on public lands are established, the BLM will continue to include non-motorized use within the context of OHV designations.

Effects Analysis

Under the revised RMP new access opportunities are proposed. These new access designations would likely increase the opportunity of OHV use within areas occupied by wolves. Sometimes these roads become very abundant in some areas, fragmenting vegetation and reducing cover for elk and other prey. Increased access for humans may be a source of increased mortality for wolves by shooting, snaring, and trapping.

Determination

Implementation of ORV management actions, as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Paleontological Resources Management

Management Actions

Pleistocene-age river terrace deposits along the Snake River have a low potential to contain vertebrate fossils. The occurrence of fossils in the river gravels and riparian areas is remote. There is a slightly higher potential for fossil occurrence on the parcels (20, 22, and 26) that include lands above the river terraces.

Effects Analysis

If a paleontological site were discovered, the associated inventory activities would be localized and limited to no more than a few acres. Actions associated with a paleontological investigation can include access or road building, increased vehicle traffic, and increased human activity. Human activities associated with these investigations are not likely to affect wolf behavior. In addition, these effects are expected to be limited in duration and intensity.

Determination

Implementation of paleontological resource management actions, as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Recreation Resources Management

Management Actions

The types of recreation activities available on BLM-lands in the planning area or as a result of public access include: float fishing and scenic floating (both private and guided), waterfowl hunting, mountain biking, hiking, dog walking, wildlife viewing, cross-country skiing and OHV activities. Public lands in the planning area are closed to overnight camping. According to the draft RMP, development of recreational and camping sites may be pursued on select BLM parcels. Likewise, if parcels are acquired by other entities, additional public recreation facilities may be developed. There is the potential for recreational activities to occur year-round in most of the planning area, though some parcels would receive minimal use during the winter period because of poor accessibility. Visitor use is highest during the summer months.

Restricted public use is allowed on most of the private lands in the Snake River channel through recreational easements. This access does not extend outside the river levees; in many cases it does not include the levees themselves. These easements do not provide increased access to the river, but a greater range of activities when one is on the river. These easements allow for specific uses of the river on private lands, including floating, fishing, wading, hiking, and picnicking. Most notably, boats can be anchored for fishing in these areas. Other uses, including camping, building fires, and hunting are prohibited on the easements.

The majority of river floating activity occurs during the warmest months following the high flows of early summer snow melt. Float fishing use begins in April with the opening of trout fishing season and peaks as fishing conditions improve during late summer and fall. Walking, biking, and horseback riding are the most common upland activities. Swimming and wade fishing are also popular activities and most commonly occur near the public access locations provided at the Wilson Bridge and near Emily Stevens County Park, adjacent to Parcel 9.

The only developed boating access on public lands is the Wilson Bridge boat ramp (parcel 13). The Wilson Bridge boat ramp is a boating take-out and put-in for approximately 23 miles of the Snake River. This access, developed in cooperation with Teton County, consists of a gravel ramp for launching and landing boats, a parking area, restrooms, and information kiosk. The National Park Service (NPS) provides boating access at Moose, Wyoming, for floating downstream to the Wilson Bridge access. Private landowners provide some limited floating access.

The Wyoming Game and Fish Department (WGFD) provide other public boating access through an access agreement on private lands located at the north end of the South Park Bridge. An area on public lands on the south side of the South Park Bridge (parcel 26) has occasionally been used for landing and launching boats, but has not been developed for this purpose. There is currently a proposal to develop a boat launch area on public lands near the South Park Bridge. Access to this parcel is possible from Hwy 89/191 but a closed, signed gate is meant to discourage public access from March 15th through September 1st. This access was closed seasonally for the protection of bald eagle roosting/perching habitat and potential raptor nesting in the cottonwood trees.

Commercially guided scenic float and fishing trips are popular in the planning area as part of the tourism-

based economy of the town of Jackson. Commercial, competitive, and large group floating activities are currently unregulated within the planning area, except where floating access is provided by the NPS. The USFS regulates commercial, competitive, and group use in river segments below the South Park Bridge. Commercial and private floating use fluctuates yearly, but water-based recreation activity and demand throughout the region has increased dramatically over the past 20 years. Rough estimates of floating use in the Wilson to South Park segment exceed 25,000 people per floating season. As many as 60 boats per day may launch from the Wilson Bridge boat ramp. The demand for these services and activities will likely continue to grow. River use allocation measures have been implemented by other land management agencies to protect wildlife habitat, provide for human health and safety, and maintain a quality recreation experience. The river segments within the planning unit provide for substantial commercial and private floating use. Upland use by the public for recreation activities on public lands and easements within the river corridor likely exceeds 25,000 visits per year. The demand for recreation facilities and recreation activities currently exceeds the supply of services and opportunities. This imbalance is expected to continue regardless of applied existing or future management scenarios. A trend of increasing recreation visitation is also expected to continue, further widening the gap between supply and demand.

Recreation management activities may include trail and road construction, building of campgrounds and associated outbuildings, maintenance associated with management, and associated human and vehicle activities.

Effects Analysis

Recreational areas are ones that humans frequent. In YNP, there has been some concern because people have fed wolves on several occasions, which could lead to a wolf bite and the subsequent necessity to eliminate the animal. However, this has occurred only occasionally, and in an area of high wolf concentration (Halfpenny 2004). Recreation areas that occur in good elk and other big game habitat may be used as access points for illegal trapping, shooting, and/or snaring of wolves. These areas also may be used for wolf viewing, which would not likely have effects of wolves and could deter illegal activities harmful to wolves.

Determination

Implementation of recreation resource management actions, as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Soil Resources Management

Management Actions

Removal of waste rock in floodplains or streams is the principle activity associated with soil resources. Other activities may include surveying (mapping), core drilling, using truck mounted soil augers, digging soil characterization pits and shovel holes, and surface soil erosion studies. These soil resource activities in the planning area are mainly in support of other programs. Soils found along the Snake River floodplain generally are dark, poorly drained, and have a fine sandy loam surface about 24 to 30 inches thick overlying extremely gravelly loamy sand to a depth of 60 inches or more. These soils are characterized by a fluctuating water table between 3 feet and the surface from May through July and are subject to flooding from May through June. Flooding and high water tables put severe limitations on building site development, sanitary facilities, and permanent recreational facilities. Wildlife habitat potential is good and the potential as a gravel source is good. These soils are a poor source for topsoil and for material with which to construct dikes, embankments, or levees.

Upland areas, with slopes from 10 to 90 percent, are dominated by dark, well drained, silt loam or loam

soils greater than 60 inches to bedrock. Some areas have rock fragments throughout the soil profile. These steep slopes are the main limitation to building site development, sanitation facilities, and permanent recreational facilities. Wildlife habitat potential is fair to good while the soils are a poor source for gravel or topsoil.

Effects Analysis

Actions associated with soil resource management are not likely to affect wolf behavior. Implementation of soil resource management actions may ultimately maintain or improve the condition of some habitats and therefore, may result in beneficial effects to elk and other prey.

Determination

Implementation of soil resource management as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Vegetation Resources Management

Management Actions

Vegetation resources management objectives are to maintain or improve the diversity of plant communities to support livestock grazing, wildlife habitat, watershed protection, visual resources, and reduce the spread of noxious weeds. To maintain or enhance essential and important habitats for special status plants species on BLM-land surface and prevent the need for any special status plant species being listed as threatened and endangered.

The BLM has committed to meeting the following range management standards from the Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management for Public Lands (**Appendix C**): Standard #2 - riparian and wetland vegetation has structural, age, and species diversity characteristic of the stage of channel succession and is resilient and capable of recovering from natural and human disturbance in order to provide forage and cover, capture sediment, dissipate energy, and provide for groundwater recharge. Standard #3 - upland vegetation on each ecological site consists of plant communities appropriate to the site and is resilient, diverse, and able to recover from natural and human disturbance.

The term noxious weed and invasive weed may be interchangeable, however noxious weeds are listed by the state, whereas invasive weed species are listed by the BLM. Noxious weeds common to the Snake River corridor include: spotted knapweed (*Centaurea maculosa*), Dalmatian toadflax (*Linaria dalmatica*), houndstongue (*Cynoglossum officinale*), Canada thistle (*Cirsium arvense*), and musk thistle (*Carduus nutans*).

The three types of control used by the BLM on public lands are chemical, biological, and mechanical. Chemical control is typically used in cooperation with Teton County Weed and Pest District.

Only federally approved pesticides and biological controls are used. Local restrictions within each county are also followed. The RMP states that if herbicides are proposed for use, minimum toxicity herbicides will be used with appropriate buffer zones along streams, rivers, lakes, and riparian areas, including those along ephemeral and intermittent streams. Projects that may affect threatened or endangered plants or animals will be postponed or modified to protect the presence of these species and consultation with the USFWS will be initiated.

Effects Analysis

Control of invasive weeds may benefit the wolf by improving forage for elk and other big game. Human activities associated with noxious weed control are not likely to disturb wolves. Ultimately, vegetation management practices may improve or create habitats suitable to elk, deer, and moose.

Determination

Implementation of the vegetation management actions as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Visual Resources Management

Management Actions

The Snake River and its cottonwood forest, backed by the Teton, Gros Ventre, and Snake River mountain vistas, provides some of the greatest scenic opportunities in Wyoming. This scenery is integral to the recreation and tourism-based economy of Jackson and Teton County. Several of the public land parcels provide views of the Grand Teton and other peaks in the Teton Range.

A visual resource inventory and classification process is a qualitative analysis that was performed along the riparian corridor of the Snake River, where most human activity on public lands occurs.

VRM actions are conducted in support of and prior to authorizing other resource management efforts. The intent is preservation of an esthetic value. Mitigation to protect visual resources may include structures or facilities be screened from view, painted, or designed to blend with the surrounding landscape.

Effects Analysis

Effects caused by visual resource management activities are not expected to impact wolf behavior or habitats because no field activities are actually involved with VRM management beyond the classification efforts which have been completed. Implementation of VRM management protocols could have a beneficial effect where structures or facilities are removed.

Determination

Implementation of visual resources management actions, as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Watershed Resources Management

Management Actions

Both the Snake River and the Gros Ventre River can provide sizeable amounts of water and sediment. The Snake River was traditionally a wide, sometimes braided channel with multiple overflow channels. The Jackson Lake Dam and the almost continuous levee system have altered the flow of water and sediment in the system to the point that the land form between the levees is rapidly changing. The levee system has reduced the river's access to many of its historic overflow channels. This has resulted in changes to the channel system, as well as changes in sediment and energy transport and distribution.

As a result of the high bed load and high flows, the river tends to switch channels frequently. This, in combination with the artificially confined nature of the channel, has created some concern for the remaining islands within the levee system as well as for the stability of the levee system itself. The Snake River Restoration Project has been proposed by Teton County and the U.S. Army Corps of Engineers to help address this situation.

The BLM manages a relatively small amount of land within the Wyoming portion of the Snake River corridor. This, in combination with the high percentage of private land, the levee system, and efforts to manipulate the channel within the levees suggests that the overall effect on water quality from activities taking place on BLM-lands is minor in comparison to the potential presented by the surrounding lands. Recreation related activities and unauthorized dumping are the actions that are most likely to take place on BLM managed lands that could directly affect water quality. Sanitation facilities at key recreation sites and site visits to BLM parcels by land managers help to reduce negative impacts but cannot prevent all undesirable activities.

The Snake River on the BLM parcels was assessed for Proper Functioning Condition on August 15, 1996. On all parcels, the river was determined to be in nonfunctioning condition, primarily because the river levees prevent access to its natural floodplain, prevent regeneration of the cottonwood stands along its banks, and channelize the flow.

The BLM parcels contain some lentic surface water features, such as oxbow lakes and wetlands that have water tables closely tied to the stage of the river. These features are generally located away from the main recreation corridor. Within the levee system, movements of the main channel and efforts to restrain this movement can have a marked effect on the water quality of an individual water body through both erosion and stagnation behind newly constructed features. Given the comparatively small size of these water bodies, the effect that they have on water quality in the Snake River is most likely undetectable.

Water features that exist on BLM parcels outside of the levee system appear to have water levels closely tied to the level of the Snake River. Seeps and springs that have other water sources may exist but they are not immediately evident. Conditions of the water features outside the levees tend to be less disturbed than those within. Conditions also appear to be closely tied to the level of grazing and recreational activity associated with the area.

Effects Analysis

Actions associated with watershed management will not negatively impact wolves or their prey. Watershed improvement practices are likely to improve riparian vegetation and habitat which will benefit elk and other big game.

Determination

Implementation of watershed management actions, as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Wildlife and Fisheries Resources Management

Management Actions

Improvements to ungulate habitat may improve habitats of smaller mammals. If habitat improvements increase the ungulate population, or sustain the existing population for a longer period of time, elk may transition to the feeding grounds later.

Effects Analysis

An increase in ungulate foraging in the riparian zone of the Snake River due to habitat improvements will create more prey for wolves; if animals herd up for longer periods of time, then wolves will also stay in the area for longer. Increased human activity associated with typical surveying and monitoring efforts are not expected to affect wolves. When completed, these wildlife habitat improvement projects may benefit wolves by providing for improved habitats for suitable prey species.

Determination

Implementation of wildlife habitat management actions as presented in the Snake River Draft Resource Management Plan EIS (2003), is **not likely to jeopardize the continued existence** of the wolf.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Snake River RMP management actions.

TABLE 7: SUMMARY OF DETERMINATIONS FOR THE SNAKE RIVER RMP

Resource	Determination
Climate and Air Quality	Not likely to jeopardize the continue existence of the species
Cultural and Natural History	Not likely to jeopardize the continue existence of the species
Fire	Not likely to jeopardize the continue existence of the species
Hazardous Waste	Not likely to jeopardize the continue existence of the species
Lands and Realty	Not likely to jeopardize the continue existence of the species
Livestock and Grazing	Not likely to jeopardize the continue existence of the species
Minerals and Geology	Not likely to jeopardize the continue existence of the species
Off-Highway Vehicle	Not likely to jeopardize the continue existence of the species
Paleontological	Not likely to jeopardize the continue existence of the species
Recreation	Not likely to jeopardize the continue existence of the species
Soil	Not likely to jeopardize the continue existence of the species
Vegetation	Not likely to jeopardize the continue existence of the species
Visual	Not likely to jeopardize the continue existence of the species
Watershed	Not likely to jeopardize the continue existence of the species
Wildlife and Fisheries	Not likely to jeopardize the continue existence of the species

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Snake River planning area. Potential effects that could affect wolves or their habitats in the Snake River RMP of the Pinedale FO include the following:

Subdivision development along the Snake River
Sand and gravel operations along the Snake River

Implementation of the Snake River RMP would not change any potential effects to the wolf that may result from current non-federal actions.